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SUPPLEMENT #5 TO THE WORKPLAN
DATED SEPTEMBER 17, 2003

PROFILING OF WASTES
FOR OFF-SITE DISPOSAL

Meredith & Associates, Inc.

M&A

Scientific, Environmental Engineering, and Regulatory Consultants

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M&A Project No. MA-2003-123

SUPPLEMENT #5 TO THE WORKPLAN DATED SEPTEMBER 17, 2003

PROFILING OF WASTES FOR OFF-SITE DISPOSAL

Prepared for:

US ENVIRONMENTAL PROTECTION AGENCY
Region 9
200 Oceangate, Suite 900
Long Beach, California 90802

Prepared by:

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21 November 2003

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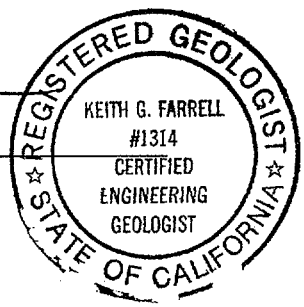

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1.0 SITE DESCRIPTION AND BACKGROUND

The site was used by Dico to blend used oil for sale to the fuel market. The operations area of the facility includes four large above ground storage tanks (AST), labeled as TB, T2, T3, and T5, inside a bermed area. The four ASTs have been sampled previously and the materials analyzed for RCRA metals and organic chemicals. The contents of the tanks appear to be a waste oil and water mixture with some sludge. The removal of the tank contents was initiated in early November 2003, and is being conducted by Consolidated Waste Industries, Inc. (CWI). The tank bottoms have been contained within twenty 55-gallon drums and one closed-top roll-off bin. Both the drums and bin are being stored on-site pending appropriate disposal.

The berm material has been sampled previously and contains elevated PCB concentrations. CWI will begin excavating the berm material on November 20, 2003, and place the berm material into closed-top roll-off bins. CWI estimates that approximately five roll-off bins will be required to contain the berm material. The bins will be stored on-site pending appropriate disposal.

Prior to disposal, the contents of the drums and roll-off bins must be sampled and analyzed for disposal criteria. This sampling plan will describe the sampling procedures and analytical tests to be completed on the samples representing the drums, and roll-off bins.

2.0 SAMPLE COLLECTION AND ANALYSIS

Samples will be collected by a representative of Meredith and Associates (M&A). The samples will be submitted to Associated Laboratories for Analysis.

Sample collection, containers, and handling will conform to the specifications prescribed in *Test Methods for Evaluating Solid Waste, SW-846* (USEPA) and M&A Standard Operating Procedures "Sample Handling and Preservation" (refer to Appendix A hereto).

2.1 DRUMS

Based on discussions with the demolition contractor, the contents of the drums represent similar materials. Therefore, it is not necessary to sample each drum. Five drums will be randomly selected, opened, and sampled. A sample will be collected from each of the five drums and contained in either pre-cleaned glass jars or brass sleeves.

For soils, or solid material, the surface of the material will be removed to a minimum 0.5 foot before sampling using a trowel or shovel. If glass sample jars are used, the trowel or shovel then will be used to transfer the sample to a glass jar. If brass sleeves are used, a core sampler containing one brass sample sleeve will be hand driven directly into the soil will collect the samples. The ends of the brass sleeves will be covered with Teflon sheets and capped with plastic caps.

If encountered, liquid samples will be collected using a bailer or similar device. The bailer will be submerged to the desired depth and allowed to fill. The contents of the bailer will be transferred to the glass sample container.

At the time of collection, one drum will be sub sampled in the field for VOCs via USEPA Method 5035. All samples will be labeled and placed in an insulated container containing ice. The samples will be transported under chain-of-custody control to Associated Laboratories, Inc. (Orange California) a State-certified laboratory, for analysis. Prior to analysis, the Laboratory will form one composite sample from the five discrete samples. The

single sample (via 5035 Method) will be tested for VOCs by USEPA Method 8260. The composite sample will be analyzed for the following:

- Semivolatile Organic Compounds (SVOCs) -- USEPA Method 8270C
- Polychlorinated Biphenyls (PCBs) -- USEPA Method 8082
- Metals -- USEPA Method 6010/7000
- Ignitability -- USEPA Method 1010/1030.

2.2 ROLL-OFF BINS

The surface of the soil in each bin will be removed a minimum depth of 1.0 foot before sampling with a trowel or shovel. If glass sample jars are used, the trowel or shovel then will be used to transfer the sample to a glass jar. If brass sleeves are used, a core sampler containing one brass sample sleeve will be hand driven directly into the soil to collect the samples. The ends of the brass sleeves will be covered with Teflon sheets and capped with plastic caps. Three samples from each bin will be collected in glass jars or brass sleeves. The samples will be labeled and placed in an ice-cooled container. At the time of collection, one sample will be sampled directly from the bin or sub sampled from one of the sample containers for VOCs via USEPA Method 5035. The samples will be transported under chain-of-custody control to Associated Laboratories (Orange, California) a State-certified laboratory, for analysis. The single sample (via 5035 Method) will be tested for VOCs by USEPA Method 8260. Prior to analysis, the Laboratory will composite the three discrete samples, from each roll-off bin, into a single composite sample. The composite sample will be analyzed for the following:

- Semivolatile Organic Compounds (SVOCs) -- USEPA Method 8270C
- Polychlorinated Biphenyls (PCBs) -- USEPA Method 8082
- Metals -- USEPA Method 6010/7000.

2.3 DUPLICATE SAMPLES

A laboratory duplicate sample will be prepared from one of the roll-off bins. The duplicate sample will be analyzed for the same parameters as the primary sample.

2.4 BACKGROUND SAMPLES

As requested by Ecology And Environment a soil sample will be collected on the adjacent property (next to the residential house) for analysis. The purpose of the sampling is for background comparison purposes. Soil samples will be collected from location at depth of 0.5 bgs. The sample will be analyzed for:

- Volatile Organic Compounds (VOCs) -- USEPA Method 8260B/5035
- Semivolatile Organic Compounds (SVOCs) -- USEPA Method 8270C
- Polychlorinated Biphenyls (PCBs) -- USEPA Method 8082
- Metals -- USEPA Method 6010/7000.

2.5 SAMPLE CONTAINERS, PRESERVATIVES, PACKAGING, AND SHIPMENT

Samples will be collected in precleaned glass jars or metal sleeves (i.e., the "sample container"). The glass jars will be secured with a screw cap. The metal sleeves will be secured with Teflon sheets and capped. All sample containers will be labeled, and stored in a shuttle containing ice to maintain a target sample temperature of 4°C. Sample containers, preservatives, and holding times are shown in Table 1. At the conclusion of each work day, the samples will be transported under chain-of-custody control to Associated Laboratories, Inc. (Orange, California), a State-certified laboratory, for analyses.

2.6 FIELD VARIANCES

As conditions in the field may vary, it may become necessary to implement minor modifications to the sampling program presented in this sampling plan. When appropriate, the USEPA will be notified of the modifications and a verbal approval will be obtained before implementing the modifications. Modifications to the approved sampling plan will be documented in the report

3.0 QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) SAMPLES

The purpose of this QA/QC program is to produce data of known quality that satisfy the project objectives and that meet or exceed the requirements of the standard methods of analysis. This program provides a mechanism for ongoing control and evaluation of data quality measurements through the use of QC materials.

Duplicate samples will be prepared and analyzed by the laboratory to evaluate sampling and analytical precision. Duplicates are prepared and analyzed in the same manner as the primary samples. Agreement between duplicate sample results will indicate good analytical precision. The duplicate sample will be analyzed for all laboratory analyses requested for the primary sample collected. The precision goal for field duplicate analyses will be plus or minus 100 percent relative percent difference for soil matrix samples.

4.0 HEALTH AND SAFETY PLAN

A Site Safety Plan (SSP) has been prepared by Consolidated Waste Industries, Inc. in conjunction with the program. The SSP is consistent with the requirements of the Code of Federal Regulations. (CFR) and the California Code of Regulations (CCR) pertaining to the requirements for health and safety at hazardous waste sites (specifically, 29 CFR 1910.120 and 8 CCR 5192). The SSP is provided in Appendix B. All field personnel will be required to review the SSP, and a safety meeting will be conducted each morning prior to initiating field work.

TABLES

TABLE 1

SUMMARY OF ANALYSES - SOIL MATRIX

SOIL ANALYSES				
Analyte	Method	Container	Preservative	Holding Time
Semi-Volatile Organic Compounds	USEPA 8270C	4 oz glass or metal sleeve	Temperature: Cool, 4°C	14 days to extraction, 40 days to analysis
CAM Metals (see Table 2)	USEPA 6010/7000	4 oz glass or metal sleeve	Temperature: Cool, 4°C	180 days mercury: 30 days
Polychlorinated Biphenyls	USEPA 8082	4 oz. glass or metal sleeve	Temperature: Cool, 4EC	14 days to extraction, 40 days to analysis
Volatile Organic Compounds	USEPA 8260B/5035	metal sleeves; subsamples to glass VOAs	sodium bisulfate; methanol; freeze - 10°C	sodium bisulfate: 48 hours methanol: 14 days frozen samples: 7 days

APPENDIX A

STANDARD OPERATING PROCEDURES – SAMPLE HANDLING AND PRESERVATION

M&A STANDARD OPERATING PROCEDURES

SAMPLE HANDLING AND PRESERVATION

M&A STANDARD OPERATING PROCEDURES-
SAMPLE HANDLING AND PRESERVATION

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1.0 INTRODUCTION

This standard operating procedure (SOP) provides guidance for the handling and preservation of environmental samples, including requirements for sample identification, chain-of-custody (COC), sample preservation and storage, and transportation. The overall objective of the SOP is to define sample management activities and protocols from the time of sample collection to the time the samples are received by the laboratory. Specific methods and procedures for the collection of groundwater and soil samples are discussed in their respective sampling SOPs. Proper sample handling and preservation techniques play a vital role in the generation of valid, defensible analytical data and in the attainment of project data quality objectives (DQOs). The outcome of environmental litigation as well as important regulatory and public health decisions often hinge on such data.

2.0 DEFINITIONS

Chain-of-Custody

Procedures and records that document the physical possession of a sample from the time it is collected to the time it is received by a laboratory. A chain-of-custody record documents the date and time of collection, the intended analyses, and the identification of all persons who relinquish or receive the sample.

Custody Seal

A brittle, non-removable tape that is placed across the lid of sample containers or coolers; an intact seal provides assurance that the samples have not been tampered with.

Holding Time

The time allowed between sample collection and sample analysis assuming that designated preservation and storage techniques are employed.

Matrix

The environmental medium that is being sampled (i.e., groundwater, surface water, soil, sediment, waste, etc.).

Quality Assurance and Quality Control Samples

Samples analyzed for the purpose of assessing the quality of the sampling effort and of the analytical data. QA and QC samples include, but are not limited to field duplicate samples, rinsate blanks, field blanks, trip blanks, and QA split samples.

Sample

Physical evidence collected for environmental measuring and monitoring. For the purpose of this SOP, the procedures and protocols primarily apply to solid (i.e., soil and bedrock) and aqueous (i.e., groundwater) samples.

3.0 PROCEDURES

3.1 APPLICABILITY

These procedures apply to work performed by M&A personnel, or to work performed by subcontractors under the direction of M&A. The information in this SOP may be incorporated into project workplans and reports.

3.2 SAMPLE MANAGEMENT

3.2.1 Sample Containers

The selection of a sample container of appropriate volume and construction depends on the sample matrix and the analyses to be performed. Unless otherwise specified in the project workplan, the sample containers should conform to the specifications prescribed in *Test Methods for Evaluating Solid Waste, SW-846* (USEPA, on-line CD ROM). A copy of these specifications is presented in Attachment A. Where samples are designated for volatile or semi-volatile organic compound analysis, the sample containers should be filled completely to ensure that no headspace is present. This applies to soil samples as well as water samples.

Once a sample container has been opened, it should be used as soon as possible. If the container was received unsealed from the laboratory or container vendor, or if the container was not used shortly after opening, it should be discarded or recycled. When storing sample containers prior to sampling, care should be taken to keep the containers away from chemicals or products, such as fuels, degreasing agents, paint, etc., that could compromise the analytical results. Sample containers containing preservatives added by the laboratory should not be used if stored for an extended period or exposed to extreme heat. Sampling personnel should exercise care when handling containers with acid preservatives, so as to avoid contact. Special attention should be paid to loosely capped containers that could result in spillage of acid preservatives.

For the purpose of this SOP, a metal or plastic soil sample sleeve (typically employed with solid- or split-barrel samples) shall be regarded as a "sample container." Sample sleeves often contain oily residues from their manufacture; accordingly, sleeves should be washed thoroughly and rinsed prior to use. Immediately following sample collection, the ends of the sample sleeves should be covered with Teflon® tape and plastic end caps to prevent volatile loss. The use of adhesive tape, such as duct tape, to secure the end caps should be evaluated carefully during project planning. Tape adhesive can contain organic compounds, such as toluene, which conceivably could lead to erroneous detections (i.e., false "hits").

3.2.2 Sample Labeling

A durable, adhesive sample label should be affixed to all sample containers. In many instances, sample labels are supplied by the laboratory subcontractor. The following information should be recorded on the label with water-resistant ink:

- Client name, project title, and/or project location (sufficiently specific for data management)
- Unique sample identification number (typically including boring or well ID, and depth, where applicable)
- Date and time of sample collection
- Sample matrix
- Initials of sampler
- Preservative(s) used
- Analysis(es) to be performed

If a split sample is collected by a third party (such as a regulator, another consultant, etc.), M&A sampling personnel should ensure that identical labels are attached to each sample container. After labeling the container, each sample should be refrigerated or placed in a cooler containing conventional cubed or block ice (typically contained in double, resealable plastic bags) or "blue ice" to maintain a target sample temperature of 4 degrees Celsius (°C). Ice replenishment may be necessary if samples are held overnight prior to submittal, or if sampling is conducted in high-temperature field conditions. Aqueous samples also should be packed in resealable plastic bags to safeguard against container breakage.

Custody Seals: Depending on project-specific or regulatory requirements, custody seals can be used on individual sample containers and/or shipping containers to preserve the chain-of-custody. A custody seal typically consists of security tape that is labeled with the sampling date and initials of the sampler. At the minimum, custody seals should be placed on the front of the cooler and on one of the rear cooler hinges.

3.2.3 Chain-of-Custody

Chain-of-custody (COC) procedures require a written record of the possession of each sample from the time it is collected to the time it is received by the laboratory. A sample is considered to be "in custody" if it is:

- In a person's possession.

- In view after being in physical possession.
- In a secured condition after having been in physical custody.
- In a designated secure area, restricted to authorized personnel.

The COC record is completed in the field to document the samples that were collected and the analyses that were requested. Information provided on the COC record typically includes the following:

- Client name
- Project name
- Project location
- Sampling location
- Signature of sampler(s)
- Sample identification number
- Date and time of collection
- Sample type (i.e., grab or composite)
- Sample matrix
- Signature of individuals involved in custody transfer (including date and time of transfer)
- Number and type of containers collected for each analysis
- Types of analyses requested
- Remarks regarding individual samples, as appropriate

COC records generally are placed in a plastic bag, and are transported with the samples. When the sample(s) are transferred, the record is signed by both the receiving and relinquishing individuals. Where a commercial, overnight carrier service is used to ship the samples (i.e., Federal Express), signed airbills will serve as evidence of custody transfer between the field sampler and the commercial carrier as well as between the carrier and the laboratory. Copies of the COC record and/or airbill are retained by the sampler.

3.2.4 Sample Preservation and Storage

Sample preservation requirements depend on the analytical method and the sample matrix. Unless otherwise specified, sample preservation procedures should follow the specifications prescribed in *Test Methods for Evaluating Solid Waste, SW-846* (USEPA, on-line CD ROM). A copy of these specifications is provided in Attachment A.

3.2.5 Sample Delivery

Procedures for packaging and transporting samples to the laboratory depend on the nature of the samples, including estimated contaminant concentrations, and the intended analyses. Samples are classified as either environmental, high concentration, geotechnical, or other samples. "Environmental samples" (USEPA, on-line CD ROM) are defined as soil or water samples that are not saturated or mixed with pure product (i.e., refined fuels, free-phase solvents, etc.). Samples that are saturated in product are defined as "high concentration samples;" they require special handling and transportation procedures as discussed in Section 3.2.6.3. Similarly, the transport of other non-environmental, hazardous samples may require careful evaluation of and adherence to U.S. Department of Transportation (DOT) regulations.

Sample transportation usually involves hand-delivery of the samples to the laboratory by M&A personnel or by courier. Sampling at remote or out-of-state job sites can require transportation by a commercial overnight carrier service. Sample handling and shipping requirements for both delivery methods are discussed in the following sections.

3.2.5.1 Environmental Samples

Recommended "environmental sample" handling and transportation procedures are outlined below:

- Each sample should be placed in a separate resealable plastic or "bubble-wrap" bag. As much air as possible should be squeezed from the bag before sealing. Bags may be sealed with evidence tape for additional security, if necessary. "Bubble-wrap" bags are effective in protecting large glass sample containers against breakage during transportation.
- An ice chest (sturdy construction) typically is used as a shipping container. In preparation for shipping or hand-delivery of the samples, the cooler drain plug is taped shut from the outside. If the samples are to be shipped via commercial carrier, packing material, such as vermiculite or "bubble-wrap," should be used to prevent

breakage of the sample containers. Cardboard or foam separators also may be placed between the bottles at the discretion of the sampling personnel.

- Water samples for organic analysis and inorganic analysis should be cooled to 4°C with conventional cubed or block ice, or with "blue ice." If conventional ice is used, it should be contained in double, resealable plastic bags such that water will not fill the cooler as the ice melts. Dry ice should not be used as it tends to freeze aqueous samples.

- As previously described, the COC record should be placed inside a resealable, waterproof plastic bag. If the cooler is shipped via a commercial, overnight carrier, the bagged COC record should be taped to the inside of the cooler lid, and the cooler lid should be taped shut with strapping tape (filament type). Tape is not necessary if the cooler is delivered by hand or by courier to the laboratory.

3.2.5.2 Geotechnical Samples

Geotechnical soil samples (or soil samples intended for physical testing) typically are collected with a Shelby tube or with a split-barrel sampler equipped with sample liners. Although formal holding times often do not apply to geotechnical analyses and tests, the samples should be submitted for analysis as soon as possible, and in some cases, preserved by chilling. Undisturbed samples should be sealed in resealable plastic bags to maintain sample moisture. COC records are necessary to generate defensible data; they should reflect information concerning suspected contamination in the samples, including headspace screening data, and the name of any suspected contaminants and the approximate range of concentrations, if known.

3.2.5.3 Other Samples

Samples other than environmental samples must be shipped according to the requirements of 49 CFR 173.24 as well as applicable State and local regulations. Prior to collection and shipment of these samples, relevant shipping requirements should be researched and a written description of shipping procedures should be prepared. The shipping procedures should be reviewed and approved by M&A's Director of Health and Safety prior to sampling. Examples of "other" samples include potential asbestos-containing material (ACM), transformer fluids, and explosive gases.

3.2.5.4 Prohibited Samples

M&A prohibits the collection of the following types of samples without advance permission from an officer of the company:

- Radioactive substances
- Biological hazards
- Chemical warfare agents
- Drugs (controlled substances)
- Explosive ordnance
- Explosives (per DOT regulations)
- Shock-sensitive materials

3.2.6 Holding Times

The allowable holding time for sample extraction and analysis depends on the sample matrix and the analytical method. Unless otherwise specified, sample holding times should conform with the specifications in *Test Methods for Evaluating Solid Waste, SW-846* (USEPA, ON-line CD ROM). A copy of these specifications is provided in Attachment A. In coordinating sample shipment or delivery to the laboratory, the sampler must take into account the vagaries of sample shipment (i.e., unanticipated delays on the part of commercial carriers or local courier services), and/or sample receipt and temporary storage at the laboratory. Wherever possible, the sampler should err on the side of caution, and submit the samples to the laboratory as soon as practicable.

4.0 REFERENCES

Department of Toxic Substances Control (DTSC). 1995a. *Responsible Sampling of Ground Water for Hazardous Substances.* California Environmental Protection Agency. July 1995. 34 pp.

DTSC. 1995b. *Drilling, Coring, Sampling, and Logging at Hazardous Waste Release Sites.* California Environmental Protection Agency. July 1995.

US Army Corps of Engineers (USACE). 1990. *Chemical Data Quality Management for Hazardous Waste Remedial Activities*, Regulation ER 1110-1-263, 1 October 1990.

US Environmental Protection Agency (USEPA). *Test Methods for Evaluating Solid Waste, SW-846.* Office of Solid Waste and Emergency Response. On-line CD ROM.

ACKNOWLEDGEMENT STATEMENT

I understand and agree to abide by the provisions of this health and safety plan, including the appendixes. In addition, I have received 40-hour HAZWOPER training and annual 8-hour HAZWOPER refresher training.

Name	Title	Date
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ATTACHMENT A

SAMPLE CONTAINER, PRESERVATION, AND HOLDING TIME REQUIREMENTS (from USEPA, SW-846)

ATTACHMENT A

Soil Sample Analytical Methods, Containers, Preservation, and Holding Times

Analyte	Analytical Method[a]	Sample Container	Preservative[a]	Holding Time[a]
Metals (Sb, Ba, Be, Cd, Cr, Co, Cu, Pb, Mo, Ni, Ag, Ti, V, Zn)	USEPA 6010B	Brass sample tube (see Section 3.2.1)	Cool, 4°C	6 months
Metals (As, Hg, Se)	USEPA 7060A (As) USEPA 7471A (Hg) USEPA 7740 (Se)	Brass sample tube (see Section 3.2.1)	Cool, 4°C	6 months (As) 28 days (Hg) 6 months (Se)
Volatile Organic Compounds	USEPA 8260B	Brass sample tube (see Section 3.2.1)	Cool, 4°C	14 days
Semivolatile Organic Compounds	USEPA 8270C	Brass sample tube (see Section 3.2.1)	Cool, 4°C	Extracted within 14 days; extracts analyzed within 40 days following extraction
Nonhalogenated Volatile Organics (diesel fuel)	USEPA 8015M (modified for diesel fuel)	Brass sample tube (see Section 3.2.1)	Cool, 4°C	14 days
Polynuclear Aromatic Hydrocarbons	USEPA 8310	Brass sample tube (see Section 3.2.1)	Cool, 4°C	Extracted within 14 days; extracts analyzed within 40 days following extraction
pH	USEPA 9045C	Brass sample tube (see Section 3.2.1)	Cool, 4°C	6 months

[a] Source: Test Methods for Evaluating Solid Waste, SW-846 (USEPA, on-line CD ROM).

ATTACHMENT B

CHAIN-OF-CUSTODY RECORD

CHAIN OF CUSTODY RECORD

MEREDITH/BOLI & ASSOCIATES, INC.

SCIENTIFIC and REGULATORY CONSULTANTS

6701 Center Drive West, Suite 900 Los Angeles, California 90045-1535

Phone (310) 670-9221 Fax: (310) 670-9512

CONTACT PERSON(S): _____

CLIENT: _____ PROJECT NO.: _____

SITE NAME: _____

SITE LOCATION: _____

SAMPLING LOCATION: _____

SAMPLING INFORMATION: _____

SAMPLE ID#	LAB ID#	DATE	TIME	SAMPLE TYPE	# of CONTAINERS	PRESERV ATION	OTHER	418.1 (TRPH)	8015 MODIFIED (TPH)	DOHS LUFT (TPH)	8020 (BXTE)	8010 (VOCs)	8240 (VOCs)	CCR TITLE 22 METALS	8015 Mod/8020	8010/8020	3270 (BNAs)			NOTES

ANALYSIS REQUESTED

TURNAROUND TIME

NORMAL

RUSH

COMMENTS (Precautions/Hazards/ Field Conditions)

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
COLLECTED by				AM PM
RELEASED by				AM PM
RELEASED to				AM PM
RELEASED to				AM PM
				AM PM

APPENDIX B

HEALTH AND SAFETY PLAN

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SECTION 1.0

GENERAL INFORMATION

1.1 Introduction:

This Site Safety and Health Plan (SSHP) addresses those activities associated with the scope of work stated in the SSHP and will be implemented by the Site Safety Officer (SSO) during site work. Compliance with this SSHP is required of all persons and third parties who enter this site. Assistance in implementing this plan can be obtained from the Site Safety Officer and Project Manager, and/or the Director of Environmental Health and Safety (DEHS). The content of this SSHP may change or undergo revision based upon additional information made available to health and safety (H&S) personnel, monitoring results or changes in the scope of work. Any change proposed must be reviewed by H&S staff and are subject to approval by the DEHS and Project Manager.

This SSHP has been written for the use of Consolidated Waste Industries, Inc. and its employees. It may also be used as a guidance document by properly trained and experienced Consolidated Waste Industries subcontractors. However, Consolidated Waste Industries does not guarantee the health or safety of any person entering this site.

Due to the potentially hazardous nature of this site and the activity occurring thereon, it is not possible to discover, evaluate, and provide protection for all possible hazards which may be encountered. Strict adherence to the health and safety guidelines set forth herein will reduce, but not eliminate, the potential for injury as this site. The health and safety guidelines in this plan were prepared specifically for this site and should not be used on any other site without prior research by trained health and safety specialists.

Consolidated Waste Industries claims no responsibility for use of this plan by unauthorized person. This plan is written for the specific site conditions, purpose, dates, and personnel specified and must be amended if these conditions change.

1.2 Site Personnel:

Personnel authorized to enter the subject site while operations are being conducted must be approved by the Project Manager. Authorization requires confirmation of conformance with OSHA 29 CFR 1910.120 training and medical examination requirements and/or other applicable regulations and review/sign-off of this SSHP.

(See Attachment 1 for Personnel Responsibilities and Qualifications)

SITE SAFETY OFFICER: Ed McGlothlin Phone: 909 772 4309

SUBCONTRACTORS (S): N/A Phone: _____

SECTION 2.0

PROJECT INFORMATION

2.1 Site Description (include unusual site features; current site status; historical uses):

The site was used by Dico Oil Corporation to blend used oil for sale to the fuel market. The operations area of the facility includes three large ASTs, a concrete truck pad, and two small sheds. The sheds were used for a small laboratory and for storage. The sheds currently hold several containers of unknown chemicals. The containers range from less than one gallon to 55-gallon drums.

The ASTs contain some residual. Two of the vessels have hatches, which are open, while the third vessel is closed with some indication that the tank may contain a significant quantity of material.

2.2 Purpose of Site Work:

1) Identify the contents of the small containers and dispose of the materials based on the field identification of the waste.

2) Sample the ASTs to identify the nature of the contents

2.3 Scope of Work (by task - in order of execution):

Goal: Identify contents of small containers

1a) Survey the site to identify any immediate hazards
2a) Establish a hot zone, a decontamination area, and a support zone
3a) Move the containerized chemicals from the sheds to the concrete truck pad
4a) Sample the containers
5a) HazCat the samples to establish DOT classifications which will allow the assignment of proper shipping descriptions and profiling of the waste
6a) Package the waste based on DOT regulations, lab packing or overpacking as necessary
7a) Prepare shipping documents and profile waste to :

Onyx Environmental
1704 W. 1st Street — EPA I.D. #CAD008302903
Azusa, CA 91702 — Phone: (626)334-5117

8) Load and ship the containers

Goal: Sample the ASTs

1b) Survey the tanks to insure that any pipe lines or other sources of material or energy are properly isolated

2b) Isolate the tanks as necessary

3b) Use a ladder to gain access to the top of the west tank, which does not have an open hatch at the base of the tank

4b) Open the top hatch of the vessel and visually determine the level of any contents of the vessel.

5b) If the contents of the tank are clear of the hatch on the north side of the vessel, open the hatch, if the contents or the vessel are above the hatch, the vessel will be cut using a cold chisel to create a small opening above the level of the contents, (the tank will be sampled from this point without entry).

6b) Place visqueen at the entrance of each hatch to contain any debris or spills from the hatches

7b) Enter each of the vessels under confined space regulations.

8b) Pull three samples from each vessel

9b) Establish chain of custody documents for the samples and submit the samples to a certified laboratory for analysis.

10b) Close the hatches to the vessels, and remove the visqueen

SECTION 3.0

HEALTH AND SAFETY RISK ANALYSIS

3.1 Hazard Analysis:

The materials at this site are anticipated to be petroleum hydrocarbons or other industrial maintenance chemicals. The conditions of the containers show no indications of high vapor pressures or other conditions which would prevent their being opened. We have not observed any packing group I or other high hazard containers onsite.

3.2 Non-Chemical Hazard Summary:

(See Table 3-1 for Summary Assessment of Non-Chemical Hazards)

3.3 Site Contaminant Source (s) and Data:

(See Table 3-2 for List of Known/Probable Contaminants and/or Applicable Analytical Data Reports)

3.4 Chemical Hazard Summary:

(See Table 3-3 for Summary Assessment of Chemical Hazards)

TABLE 3-1

ASSESSMENT OF NON-CHEMICAL HAZARDS

Non-Chemical Hazard	*Yes*	*No*	*Task No. (s)*	*Non-Chemical Hazard*	*Yes*	*No*	*Task No. (s)*
1. Electrical (overhead lines)		X		16. Shoring		X	
2. Electrical (underground lines)		X		17. Scaffolding		X	
3. Gas/Water lines		X		18. Biologic		X	
4. Hydroblasting Equipment		X		19. Holes/Ditches		X	
5. Steam Cleaning Equipment		X		20. Steep Grades		X	
6. Machinery	X			21. Slippery Surfaces		X	
7. Heat Exposure		X		22. Uneven Terrain	X		
8. Cold Exposure		X		23. Unstable Surfaces		X	
9. Oxygen Deficiency	X			24. Elevated Surfaces	X		
10. Confined Spaces	X			25. Lighting		X	
11. Noise		X		26. Vehicle Traffic		X	
12. Ionizing Radiation		X		27.			
13. Non-Ionizing Radiation		X		28.			
14. Fire		X		29.			
15. Explosive Atmospheres	X			30.			

TABLE 3-2

KNOWN AND/OR PROBABLE CONTAMINANTS*

Contaminant	*Source of Contamination*	*Sample Location*	*Sample Type*	*Concentration Range*
SOLVENT, (PETROLEUM)	SUSPECTED	NONE	NONE	NONE
HYDRALIC OIL (PETROLEUM)	SUSPECTED	NONE	NONE	NONE
UNKNOWN PESTICIDE (Parathion)	SUSPECTED	NONE	NONE	NONE
PAINT THINNER, (PETROLEUM)	SUSPECTED	NONE	NONE	NONE
ACETONE	SUSPECTED	NONE	NONE	NONE
USED OIL, (PETROLEUM)	Raw material of business	Through out facility	GRABS	0 to 700,000 ppm
POLYCHLORINATED BIPHENYLS	Contaminate of raw material	Through out facility	GRABS	0 to 160 ppm
CHROMIUM	Contaminate of raw material	Through out facility	GRABS	0 to 55 ppm
LEAD	Contaminate of raw material	Through out facility	GRABS	0 to 1640 ppm

TABLE 3-3

ASSESSMENT OF CHEMICAL HAZARDS

Chemical Name (or class)	*PEL/TLV*	*Other Pertinent Limits (Specify)*	*Potential Exposure Pathways*	*Acute Health Effects*	*Chronic Health Effects*
SOLVENT, (PETROLEUM)	350 mg/m^3	1100ppm, lel	Skin, eyes, respiration	Irr, drowsy, nausea, dry skin	CSN attack, Resp system
HYDRALIC OIL (PETROLEUM)	350 mg/m^3	1100ppm, lel	Skin, eyes, respiration	Irr, drowsy, nausea, dry skin	CSN attack, Resp system
UNKNOWN PESTICIDE (Parathion used)	0.05 mg/m^3	10ppm, IDLH	Skin, eyes, respiration	Irr, drowsy, nausea, Vomit,dry Convuls	CSN, CVS attack, Resp system
PAINT THINNER, (PETROLEUM)	350 mg/m^3	1100ppm, lel	Skin, eyes, respiration	Irr, drowsy, nausea, dry skin	CSN attack, Resp system
ACETONE	250 mg/m^3	2500ppm, lel	Skin, eyes, respiration	Irr, drowsy, nausea, dry skin	CSN attack, Resp system
USED OIL, (PETROLEUM)	350 mg/m^3	1100ppm, lel	Skin, eyes, respiration	Irr, drowsy, nausea, dry skin	CSN attack, Resp system

TABLE 3-3
CONTINUATION

Polychlorinated Biphenyls	0.001mg/m^3	5 mg/m^3	Skin, eyes, respiration	Irr. eyes,chloracne, liver dammage repro effects	Irr. eyes,chloracne, liver dammage repro effects
Chromium	0.5 mg/m^3	350 mg/m^3 IDLH	Skin, eyes, respiration	Irritant	Eyes,skin, Resp system
LEAD	0.100 mg/m^3 (lead)	100 mg/m^3 (lead) IDLH	Skin, eyes, respiration	Irritant	CSN attack, Resp system, Kidneys, Liver, pancreas

PEL = OSHA permissible Exposure Limit, represents the maximum allowable 8 hour time weighted average (TWA) exposure concentration
TLV = ACGIH Threshold Limit Value; represents the maximum recommended 8-hour TWA exposure concentration
STEL = OSHA Short-term Exposure Limit; represent the maximum allowable 15 minute TWA exposure concentration
TLV-STEL = ACGIH Short-term Exposure Limit; represents the maximum recommended 15 minute TWA exposure concentration
IDLH = Immediately Dangerous to Life and Health; represents the concentration at which one could be exposed for 30 minutes without experiencing escape-impairing or irreversible health effects
TPH = Total Petroleum Hydrocarbon
VOC = Volatile Organic Compounds

SECTION 4.0

HEALTH AND SAFETY FIELD IMPLEMENTATION

4.1 Personal Protective Equipment (PPE) Requirements:

PPE may be upgraded or downgraded by the site industrial hygienist, EHSO, or qualified Site Safety Officer based upon site conditions and air monitoring results. Reference to required PPE will be by Level of Protection (A-D). A summarized description of minimum required PPE by level of protection is indicated below:

LEVEL A Self-contained breathing apparatus (SCBA) or supplied-air respirator (SAR) with escape SCBA; totally-encapsulating suit; chemical resistant boots and gloves, two-way radio communications.

LEVEL B SCBA or SAR with escape SCBA; chemical-resistant suite, boots, gloves.

LEVEL C Air purifying respirator (half or full face); chemical-resistant suit, boots, gloves.

LEVEL D Coveralls, chemical-resistant boots, safety glasses.

(See Table 4-1 for PPE Requirements)

4.2 Monitoring Equipment Requirements:]

Monitoring is conducted by the Site Safety Officer or designee. Conduct contaminant source monitoring initially. Complete breathing zone monitoring if source concentrations are near or above contaminant action level concentrations. Log direct reading on Direct Reading Report form. Calibrate monitoring instruments daily or in accordance with manufacturers' specifications. Record calibration data on the Instrument Calibration Log.

(See Attachment 4 for Direct Reading Report and Instrument Calibration Log)

4.3 Site Zones/Delineation:

Exclusion Zone: The zone where contamination does or could occur. This zone is where the majority of hazardous material is handled.

Contamination Reduction Zone: At perimeter of Exclusion Zone.

Support Zone. Outside of Contamination Reduction Zone

4.4 Site Communication:

X____ By two way radio
X ___ By telephone
____ By pager
_____ By other means (describe): Air horn for work crew inside of building.

TABLE 4-1

PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIREMENTS

Task No. (s)	*Level of Protection*	*Level of Upgrade*	*PPE[a] Suit*	*PPE[b] Gloves*	*PPE[b] Feet*	*PPE[b] Head*	*PPE[b] Eyes*	*PPE[b] Ears*	*PPE[c] Resp.*	*Additional PPE[a]*
1a, 2a	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	NONE	
3a, 4a	B	A	Polytyvex	N & Pvc	Steel +	HH	faceshield	none	SAR	
5a, 6a, 7a, 8a	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	None	
1b, 2b, 6b	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	NONE	
3b, 4b, 5b	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	OV/AG	
7b, 8b	B	A	Polytyvex	N & Pvc	Steel +	HH	faceshield	none	SAR	
9b, 10b	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	None	
5b, cut tank if necessary	C	B	tyvex	N & PVC	Steel +	HH	Glass +	None	OV/AG	

a = Personal Protective Equipment

SUIT:
NOMEX = Fire retardant clothing
Std = Standard work clothes
Tyvek = Uncoated Tyvek disposable coveralls
PE Tyvek = Polyethylene - coated Tyvek
Chemrel = Chemrel coverall with hood
Saranex = Saran-laminated Tyvek
LtPVC = Light-weight PVC raingear
Med PVC = Medium-weight PVC suit
Hvy PVC = Heavy-weight PVC coverall with hood
Road= Roadwork vest

GLOVES
Work = Work gloves (canvas, leather)
Neo = Neoprene gloves
PVC = PVC gloves
N = Nitrile gloves
V = Vinyl gloves
L = Latex gloves

a = Personal Protective Equipment

FEET
Steel = Steel toe boots
Steel + = Steel-toe PVC boots
Booties = PVC booties

HEAD
Hlt = Hard-hat

EYE:
Gloss = Safety glasses
Goggle = Goggles
Shield = Face shield

EAR
Plugs = Earplugs
Muff = Earmuff

a = Personal Protective Equipment

RESPIRATOR
APR = Air purifying respirator
Full APR = Full face APR
Half APR = Half face APR
PAPR = Powered Air Purifying Resp
SAR = Airline-supplied respirator
SCBA = self-contained breathing apparatus
Escape = Escape SCBA
OV = Organic Vapor Cartridge
AG = Acid Gas Cartridge
OV/AG = Organic Vapor/Acid Gas Cartridge
AM = Ammonia Cartridge
Dust/mist = Dust/mist pre-filter and cover for cartridge
HEPA = High efficiency particulate air filter cartridge

Other
* = Use if contact with wet soil or water
** = Optional use except if specific hazard present

TABLE 4-2

MONITORING PROTOCOLS AND CONTAMINANT ACTION LEVELS

Breathing Zone - Action Level Concentrations *

Task No. (s)	*Contaminant*	*Monitoring Equipment*	*Monitoring Protocol*	*Monitored Level Mandatory Respirator Use*	*Monitored Level for Mandatory Work Stoppages* **
ALL, except 7b, 8b	Petroleum based hydrocarbons	PID	.continuous	100 ppm	1000ppm, or 10% LEL, whichever is lower
7b, 8b	Petroleum based hydrocarbons, LEL, CO_2, CO	4 gas meter	.continuous	NA	10% LEL

* Monitoring performed at operator's breathing zone
** Call the Regional Environmental Health and Safety Coordinator for consultation

PID = Photoionization Detector (HL, TIP, OVM)
FID = Flame Ionization Detector (OVA)

SECTION 5.0

SITE OPERATING PROCEDURES

5.1 Initial Site Entry Procedures:

Locate nearest available telephone. Indicate location on Site map.

- Determine wind direction, establish hotline, and set-up decontamination facilities. Note wind direction and location of decontamination facilities on Site Map.
- Post Emergency Information. Confirm/post emergency phone number and hospital route.
- Designate at least one vehicle for emergency use.
- If toilet facilities are not located within a 5 minute walk from the decontamination facilities, either provide a chemical toilet and hand washing facilities, or have vehicle available (not the emergency vehicle) for transport to nearby facilities.
- Prior to working on-site, conduct an inspection for physical and chemical hazards.
- Conduct or review utility clearance prior to start of work, if appropriate.
- Note any specialized protocols particular to work tasks associated with the project.

5.2 Daily Operating Procedures:

- Hold daily Tailgate Safety Meeting prior to work start.
- Use monitoring instruments and follow designated protocol and contaminant action levels.
- Use personal protective equipment (PPE) as specified.
- Remain upwind of operations and airborne contaminants, if possible.

- Establish a work/rest regime when ambient temperatures and protective clothing create a potential heat stress hazard

- Do not carry cigarettes, gum, etc., into contaminated areas.

- Refer to Site Safety Officer for specific concerns for each individual site task.

- ALWAYS EMPLOY THE BUDDY SYSTEM

- Be alert to your own physical condition. Watch buddy for signs of fatigue, exposure, etc.

- All accidents, no matter how minor, must be reported immediately to the Site Safety Officer.

5.3 **Decontamination (Decon) Procedures (Personnel and Equipment):**

- Personnel decontamination procedures will be required when Level C or higher levels of protection are used by personnel.

- Dry wipe samples prior to packaging

- Brush clean the sampling equipment and rinse with distilled water or other cleaning solution.

- Wipe clean the monitoring equipment.

- Equipment will be brushed clean and/or pressure-washed if heavily contaminated.

- Decontamination will be performed in a manner that minimized waste generation.

- Containment systems will be set up as necessary for collection of decon solutions.

- Spent decon solutions will be contained in drums or portable tanks and disposed of as waste, if applicable.

- Do not walk through areas of obvious or know contamination, and do not handle or touch contaminated material directly.
- Make sure all PPE has no cuts or tears prior to donning.
- Fasten all closures on suits, covering with tape, if necessary.
- Care should be taken to limit the extent that a piece of equipment comes into contact with contamination (e.g., on backhoes - limit contact to the arm and bucket)

5.4 Additional Health and Safety Protocols:

- For Confined Space Entry operations, follow all requirements of CWI Policy an Procedure

SECTION 6.0

EMERGENCY RESPONSE PLAN

6.1 Emergency Incident Procedures:

If an emergency incident occurs, take the following action:

Step 1: Notify the Site Safety Officer and Field Supervisor and size-up situation based on available information.

Step 2: As necessary, request assistance from the outside sources and/or allocate personnel and equipment resources for response.

Step 3: Survey and assess existing and potential hazards

Step 4: As appropriate, evacuate site personnel and nearby public and contain hazards.

Step 5: Prepare Incident Report.

6.2 Emergency Injury Procedures:

If an injury occurs, take the following action:

Step 1: Get medical attention for the injured person immediately.

Step 2: Notify the Site Safety Officer and Field Supervisor.

Step 3: Depending on the type and severity of the injury, notify the CWI Occupational Physician.

Step 4: Notify the injured person's Human Resources office.

Step 5: Prepare the Incident Report. The Site Safety Officer is responsible for its preparation and submittal to the Human Resources Office within 24 hours.

Step 6: The Site Safety Officer will assume charge during a medical emergency.

6.3 Emergency Telephone Numbers:

TO BE POSTED

Title	*Name*	*Phone No.*
Police Department	Police	911
Fire Department	Fire/Emergency	911
Local Hospital	As directed by safety personnel	
Local Ambulance/Rescue	Paramedics	911
Director of Environmental Health & Safety	Health and Safety Director	909-625-6645
Regional Occupational Physician/Facility	Hospital/Medical Office	Long Beach Mer. Med Ctr
Client Contact	Luis Marmot	
Site Contact	Luis Marmot	
Project Manager	Ed McGlothlin	909-772-4309
Site Safety Officer	Ed McGlothlin	
Subcontractor Contact (s)	N/A	

6.4 Hospital:

Name: Long Beach Memorial Medical Center

Address: 2801 Atlantic AV. Long Beach CA

Phone: 562-933-2000

Route:

(See Hospital Route Map on following page (to be posted)

ATTACHMENT 1

PERSONNEL RESPONSIBILITIES AND QUALIFICATIONS

PERSONNEL RESPONSIBILITIES AND QUALIFICATIONS

Title	*General Description*	*Specific Responsibilities*	*Required Training & Medical Surveillance*
Project Manager:	• Reports to upper - level Management. • Has authority to upper-level operations. • Assumes total control over site activities.	• Prepares and organized the background review of the job at hand, the Work Plan, the Site Safety and Health Plan, and the field team. • Obtains permission for site access and coordinated activities with appropriate officials. • Ensures that the Work Plan is completed and on schedule. • Briefs the field teams on their specific assignments. • Uses the Site Safety Officer to ensure that safety and health requirements are met. • Prepares the final report and support files on the response activities. • Serves as the liaison with public officials.	• 40-hr Hazardous Waste Training, Including 8 hour update (29 CFR 1910.120) • 8 hour Supervisor Hazardous Waste Training (29 CFR 1910.120) • Respirator use (if on site work). • Medical surveillance participant (if on site work) • Medical hazards training.

Title	*General Description*	*Specific Responsibilities*	*Required Training & Medical Surveillance*
Site Safety Officer & Alternates:	• Advises the Field Supervisor on all aspects of health and safety on site. • Recommends stopping work if any operations threaten worker or public health or safety.	• Coordinates safety and health program activities. • Conducts Tailgate Safety Meetings and completes all documentation forms required by the Site Safety and Health Plan. • Monitors site personnel for signs of stress, such as cold exposure, heat stress and fatigue. • Monitors on site hazards and conditions. • participates in preparation of and implements the Site Safety and Health Plan. • Ensures that protective clothing and equipment are properly stored and maintained. • Knows emergency procedures, evacuation routes, and telephone numbers of the ambulance, local hospital, poison control center, fire department and police department. • Notifies, when necessary, local public emergency officials. • Coordinates emergency medical care.	• 40 hour Hazardous Waste Training including 8 hour (CFR 1910.120). • Respirator use training. • Medical surveillance participant. • Medical hazards training.
Field Supervisor:	• Responsible for field team operations and safety. • Reports to Project Manager.	• Manages field operations. • Executes the Work Plan and schedule. • Enforces safety procedure. • Coordinates with the SSO in determining protection level. • Enforces site control. • Documents field activities and sample collection. • Serves as a liaison with public officials.	• 40 hour Hazardous Waste Training including 8 hour update (29 CFR 1910.120). • Respirator use training. • Medical surveillance participant. • Medical hazards training.

TITLE	*GENERAL DESCRIPTION*	*SPECIFIC RESPONSIBILITIES*	*REQUIRED TRAINING & MEDICAL SURVEILLANCE*
Team Members:	• Reports to Field Supervisor.	• Safely completes the on-site tasks required to fulfill the Work Plan. • Complies with Site Safety and Health Plan. • Notifies the SSO or Field Supervisor of unsafe conditions.	• 40 hour Hazardous Waste Training including 8 hour update (29 CFR 1910.120). • Respirator use training. • Medical surveillance participant. • Medical hazards training.

ATTACHMENT 2

SITE MAP (S)

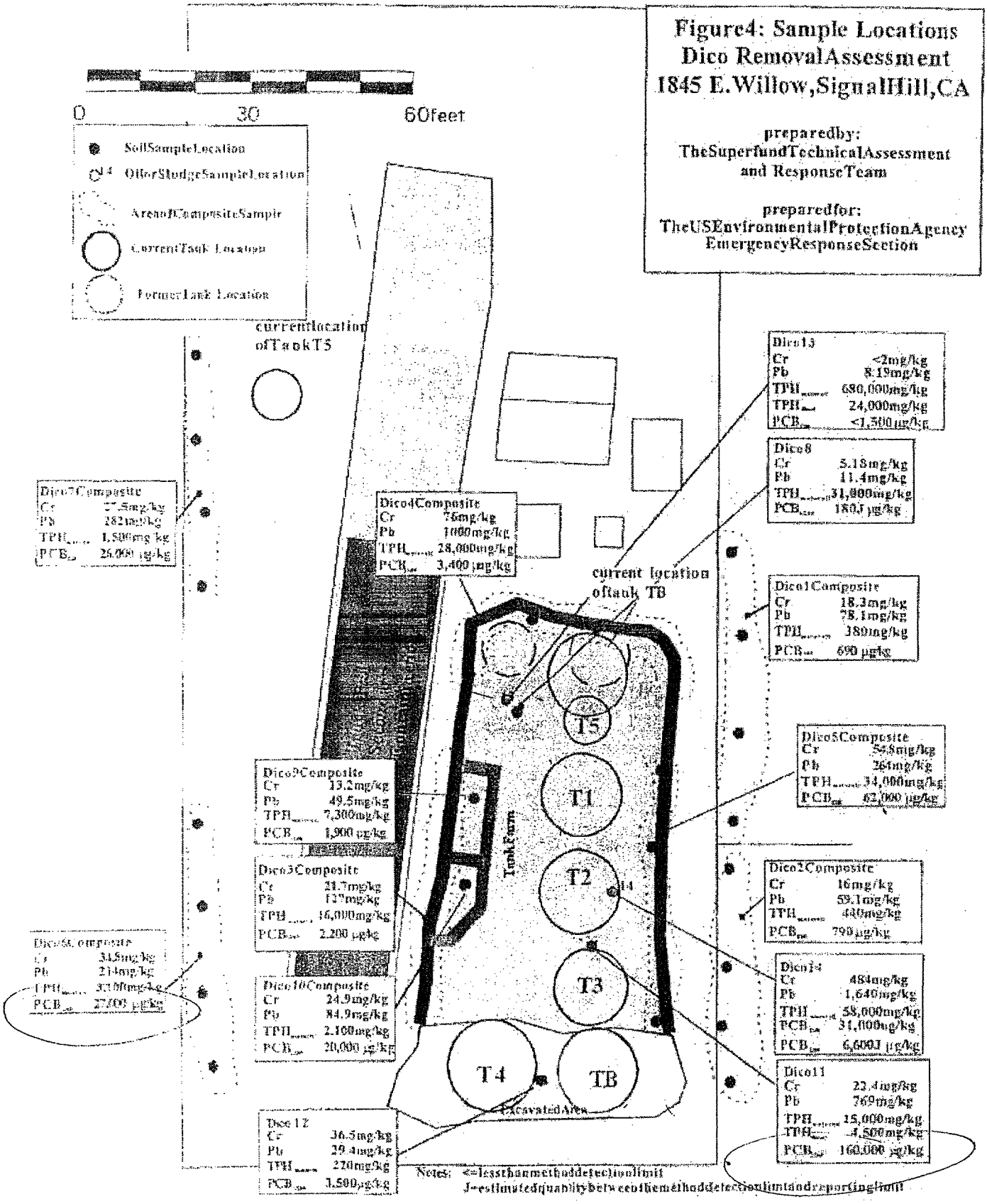
Figure4: Sample Locations
Dico RemovalAssessment
1845 E.Willow,SignalHill,CA
preparedby:
TheSuperfundTechnicalAssessment
and ResponseTeam
preparedfor:
TheUSEnvironmentalProtectionAgency
EmergencyResponseSection
0
30
60feet
SoilSampleLocation
OilorSludgeSampleLocation
AreaofCompositeSampl
CurrentTank Location
FormerTank Location
currentlocation
ofTankT5
Dico13
Cr <2mg/kg
Pb 8.19mg/kg
TPH 680,000mg/kg
TPH 24,000mg/kg
PCB <1,500 µg/kg
Dico8
Cr 5.18mg/kg
Pb 11.4mg/kg
TPH 31,000mg/kg
PCB 180J µg/kg
Dico7Composite
Cr 27.5mg/kg
Pb 282mg/kg
TPH 1,500mg/kg
PCB 26,000 µg/kg
Dico4Composite
Cr 76mg/kg
Pb 1000mg/kg
TPH 28,000mg/kg
PCB 3,400 µg/kg
current location
oftank TB
Dico1Composite
Cr 18.3mg/kg
Pb 78.1mg/kg
TPH 380mg/kg
PCB 690 µg/kg
T5
Dico5Composite
Cr 56.8mg/kg
Pb 264mg/kg
TPH 34,000mg/kg
PCB 62,000 µg/kg
Dico9Composite
Cr 13.2mg/kg
Pb 49.5mg/kg
TPH 7,300mg/kg
PCB 1,900 µg/kg
T1
Tank Farm
Dico3Composite
Cr 21.7mg/kg
Pb 137mg/kg
TPH 16,000mg/kg
PCB 2,200 µg/kg
T2
Dico2Composite
Cr 16mg/kg
Pb 59.1mg/kg
TPH 480mg/kg
PCB 790 µg/kg
Dico6Composite
Cr 31.5mg/kg
Pb 214mg/kg
TPH 33,000mg/kg
PCB 27,000 µg/kg
Dico10Composite
Cr 24.9mg/kg
Pb 84.9mg/kg
TPH 2,100mg/kg
PCB 20,000 µg/kg
T3
Dico14
Cr 484mg/kg
Pb 1,640mg/kg
TPH 58,000mg/kg
PCB 31,000mg/kg
PCB 6,600J µg/kg
T4
TB
ExcavatedArea
Dico11
Cr 22.4mg/kg
Pb 769mg/kg
TPH 15,000mg/kg
TPH 4,500mg/kg
PCB 160,000 µg/kg
Dico12
Cr 36.5mg/kg
Pb 29.4mg/kg
TPH 220mg/kg
PCB 3,500µg/kg
Notes: <=lessthanmethoddetectionlimit
J=estimatedquantitybetweenthemethoddetectionlimitandreportinglimit

ATTACHMENT 3

MATERIAL SAFETY DATA SHEETS

NOT AVAILABLE

ATTACHMENT 4

CONFINED SPACE ENTRY PROCEDURE

Sample form

CONSOLIDATED WASTE INDUSTRIES, INC.

Permit-Required Confined Space Entry Program

General Company Policy

The purpose of this program is to inform interested persons, including employees, that Consolidated Waste Industries, Inc. is complying with the OSHA Confined Space Standard, Title 29 Code of Federal Regulations 1910.146. We have determined that this workplace needs written procedures for the evaluation of confined spaces, and where permit-required spaces are identified, we have developed and implemented a permit-required confined space entry program. This program applies to all work operations of Consolidated Waste Industries, Inc. where employees must enter a permit-required confined space as part of their job duties.

The Compliance Manager has overall responsibility for coordinating safety and health programs in this company. The Compliance Manager is the person having overall responsibility for the Permit-Required Confined Space Program. The Compliance Manager, or their designee, will review and update the program, as necessary.

Copies of the written program may be obtained from the Compliance Manager in the Compliance Office at the Montclair Terminal Facility.

Under this program, we identify permit-required spaces that may be encountered at Consolidated Waste Industries, Inc., and provide training for our field employees according to their responsibilities with regards to permit space. These employees receive instructions for safe entry into our specific type of confined spaces, including testing and monitoring, appropriate personal protective equipment, rescue procedures, and attendant responsibilities.

This program is designed to ensure that safe work practices are utilized during all activities regarding the permit space to prevent personal injuries and illnesses that could occur.

If, after reading this program, you find that improvements can be made, please contact Jennifer Crompton, Compliance Manager. We encourage all suggestions because we are committed to creating a safe workplace for all our employees and a safe and effective permit-required confined space entry program is an important component of our overall safety plan. We strive for clear understanding, safe work practices, and involvement in the program from every level of the company.

Hazard Evaluation for Permit Spaces

To determine if there are permit-required confined spaces at the Consolidated Waste Industries, Inc. terminal the Compliance Manager has conducted a hazard evaluation of our workplace. In addition each Project Manager conducts a hazard evaluation of each project site. This evaluation provides us with the information necessary to identify the existence and location of permit-required confined spaces in our workplaces that must be covered by the Permit-Required Confined Space Entry Program. This written hazard evaluation is kept in each respective project file.

Preventing Unauthorized Entry

To provide a safe work environment and to prevent exposed employees from accidentally entering a permit space, we have implemented the following procedures to inform all employees of the existence, location, and danger posed by permit spaces in Consolidated Waste Industries, Inc.. To inform employees of the existence of a permit space, we post appropriate signage bearing the words, "DANGER - PERMIT-REQUIRED CONFINED SPACE, DO NOT ENTER" at each space. To ensure that unauthorized employees do not enter and work in permit spaces, we clearly mark and close off access points to all confined spaces.

Safe Permit Space Entry Procedures

The Project Manager will act in the capacity of Entry Supervisor responsible for authorizing entry and issuing entry permits for work in permit spaces. The file of permits and related documents are kept in the appropriate project file in the Customer Service Department.

The procedures we follow for preparing, issuing, and canceling entry permits include the following elements:

1. Hazard evaluation is completed
2. The Permit is developed which shall include, at a minimum, the following information:
    a. Location and detailed description of the space, including identified hazards, and work to be performed,
    b. List of the participants in the entry, their entry functions, and signatures
    c. The anticipated duration of the entry
    d. Monitoring intervals and area for test result entries
    e. Check list for safety procedure requirements
    f. Emergency contacts
    g. Isolation techniques employed
    h. Name and signature of the Entry Supervisor
3. Cancellation of the Permit will occur under the following conditions:
    a. The confined space entry is completed
    b. A condition that is not allowed under the Permit arises in or near the permit space

These employees have current authorization to work in or near permit spaces. This list also includes the work activities they are expected to perform :

Montclair			Oakland:	
Supervisor:	Sean Evans	Mark Freeman	Supervisor:	Lee Barfield
	Tabor Nelson	Ed McGlothlin		Joseph Brown
	Jeanne Delperdang			
Entrant/Attendant:	Sal Luna	Juan Gonzalez	Entrant/Attendant:	
	Tony Ruiz	Johnny Mendoza		Edwin Avila
	Isidro Aguilera	Ruben Ramirez		Gerardo Romero
	Manuel Ramirez	Andres Gonzalez		Sal Rodriguez

Pre-Entry Evaluation

To ensure the safety and health of our employees, before allowing authorized workers to enter a permit space, we evaluate conditions in that space to determine if the conditions are safe for entry. Any employee who enters the space has the opportunity to observe the pre-entry and any subsequent testing. The authorized entrant or that employee's representative also has the option of requesting a reevaluation of the space if they feel that the evaluation was not adequate.

Our company follows the procedures to evaluate each permit space before entry according to 1910.146(c)(5)(ii)(C). This includes testing the internal atmosphere with a calibrated direct-reading instrument for oxygen content, flammable gases and vapors, and potential toxic air contaminants. We also periodically test the atmosphere of the space to ensure that the continuous ventilation is preventing the accumulation of a hazardous atmosphere.

Certification

According to 1910.146(c)(5)(ii)(H), our company verifies that the space is safe for entry and that the pre-entry measures required by 1910.146(c)(5)(ii) have been taken, through a written certification that contains the date, location of the space, and signature of the person providing the certification. At our company, the Project Manager is responsible for verifying these procedures. The certification is made before entry and is available to each employee entering the space.
According to 1910.146(c)(5)(iii), our company documents the basis for determining that all hazards in a permit space have been eliminated, through a certification that contains the date, location of the space, and signature of the person making the determination. At our company, the Project Manager is responsible for documenting this information. The certification is available to each employee entering the space.

Equipment

To ensure the safety and health of our employees, Consolidated Waste Industries, Inc. provides appropriate equipment to all employees who work in or near permit spaces. According to 1910.146(k)(3)(i), each authorized entrant will use a chest or full body harness, with a retrieval line attached at the center of the entrant's back near shoulder level, above the entrant's head, or at another point which Consolidated Waste Industries, Inc. can establish presents a profile small enough for the successful removal of the entrant. Wristlets may be used instead of the chest or full body harness if Consolidated Waste Industries, Inc. can demonstrate that the use of a chest or full body harness is infeasible or creates a greater hazard and that the use of wristlets is the safest and most effective alternative.

We provide the following additional equipment to all employees who work in or near permit spaces:

1. Safety lines and harnesses.
2. All required P.P.E
3. Extraction Devices and any other retrieval equipment
4. First Aid Equipment
5. Emergency Warning Devices
6. Any required engineering control mechanisms
7. Lockout/Tag Out Equipment as necessary
8. Appropriate Signs and warning tape
9. Respiratory Equipment appropriate to the project

We maintain all equipment in excellent working condition, train the entrants in the correct usage of this equipment, and ensure that all equipment, including that used for personal protection, is used properly

The Project Manager/Entry Supervisor determines the space to be entered and the work to be performed. He develops the list of equipment to be used on the project and ensures its proper use at the job site.

Duties: Authorized Entrants

Those persons who have completed the training and are authorized to enter our permit spaces (authorized entrants) are assigned specific duties and responsibilities which they must perform when they work in the permit space. Their duties and responsibilities include:

1. Follow the requirements of the Confined Space Program and all entry procedures.
2. Carry out all entry team functions as defined in the Site Specific Health and Safety Plan.
3. Keep regular communication with the Attendant while occupying the confined space.

4. Keep training up to date
5. Report all work related injuries or illness immediately to the Entry Supervisor, and
6. Use appropriate safety and personal protective equipment as provided.

The elements covered in the training program for authorized entrants includes: 24 Hours of Initial Confined Space Entry training including case histories, regulations governing confined space work, atmospheric hazards, ventilation, respiratory protection, the entry permit system, hot work, confined space rescue. Review training is provided whenever there are significant changes in the scope of the confined spaces CWI personnel will be asked to enter, changes occur in regulatory requirements, and/or whenever an authorized entrant develops actions which indicate that the work is not being performed in a safe manner consistent with entry policies and practices.

Duties: Attendants

Those persons who have completed the training and have been designated as permit space attendants are assigned specific duties and responsibilities which they must perform in permit space job duties

Their duties and responsibilities include:

1. Watch the area around the space entered,
2. Keep people and hazards away,
3. Monitor and communicate with entrants,
4. Know signs of a problem,
5. Summon the rescue team,
6. Begin non-entry rescue,
7. Never enter the confined space.

The elements covered in the training program for permit space attendants include: (Same as Entrant training requirements. CWI trains employees occupying these positions to be used in either role.)

Duties: Entry Supervisors

Those persons who have completed the training and have been designated as permit space entry supervisors are assigned specific duties and responsibilities which they must perform in permit space job duties.

Their duties and responsibilities include:

1. Authorized the confined space entry,
2. Makes sure the permit is complete,
3. Sees that all tests and procedures are done,
4. Determines that all team members and equipment are in place and ready,
5. Oversees follow-up tests done during the entry,
6. Terminates the entry permit when work is done or if a problem develops.

The elements covered in the training program for permit space entry supervisors include: (Same as Entrant and Attendant requirements with added emphasis on decision making and hazard assessment).

Training Program

Every employee at Consolidated Waste Industries, Inc. who faces the risk of confined space entry is provided with training so that each designated employee acquires the understanding, knowledge and skills necessary for the safe performance of the duties assigned to them

Michael Cleveland, MSPH, CIH conducts our permit-required confined space training. All training related materials, documents, and signed certificates are kept in the Compliance/Personnel Office.
In our company, all field employees receive training for entry into permit spaces.

When we conduct the training, we use a classroom format including audio/visual, demonstration, and lecture/discussion. This is followed by a practical application portion where each person actually takes part in mock entries. New employees are always trained before their initial assignment of duties.

New employees must go through the initial 24 Hour confined space class curriculum. When changes occur in permit-required confined space areas of our company, we conduct refresher training sessions to bring the confined space entry team members up to date. If we have reason to believe that an employee has deviated from a previously trained procedure or that their knowledge seems inadequate, we either retrain the employee or remove them from the authorized confined space entry team member list.

Upon successful completion of Consolidated Waste Industries, Inc. permit-required confined space training program, each participant receives a certificate signifying their successful completion and understanding of the course elements.

Rescue and Emergency Services

Consolidated Waste Industries, Inc. utilizes its own employees whenever possible to perform immediate rescue services in the event of a permit space incident. This group of employees have been trained, at a minimum, to:

- Perform the assigned rescue duties;
- Correctly use personal protective equipment (PPE) required for the job;
- Establish proficiency as an authorized entrant, as provided by 1910.146(g) and (h); and
- Perform basic first-aid and cardiopulmonary resuscitation (CPR).

Consolidated Waste Industries, Inc. also ensures that at least one member of the rescue team holds a current certification in first-aid and CPR, and that affected employees practice making permit space rescues at least once every 12 months, by means of simulated rescue operations in which they remove dummies, manikins, or actual persons from the actual permit spaces or from representative permit spaces. Representative permit spaces will, with respect to opening size, configuration, and accessibility, simulate the types of permit spaces from which rescue is to be performed.

Whenever possible Apex Safety and Health Consultants or Safety Unlimited conducts our rescue and emergency training. Any employee trained as an Entry Supervisor, Entrant or Attendant has been trained to respond in the capacity as a rescuer.

Post-operations Procedures

Upon completion of work in a permit space the Entry Supervisor account for all entrants and attendants before the physical closing of the confined space, initializing reactivation of affected equipment, and finishing out the permit.

Review-Procedures

To ensure that all employees participating in entry operations are protected from permit space hazards, Consolidated Waste Industries Inc. reviews the Permit-Required Confined Space Entry Program on a regular basis. We use the retained canceled permits from the past 12 months within one year after each entry and revise the program as necessary. Consolidated Waste Industries, Inc. performs a single annual review covering all entries performed during a 12 month period. If no entry is performed during a 12 month period, no review will be performed.

Enforcement

Constant awareness of and respect for permit-required confined space entry hazards, and compliance with all safety rules are considered conditions of employment. Supervisors and individuals in the Safety and Personnel Department reserve the right to issue disciplinary warnings to employees, up to and including termination, for failure to follow the guidelines of this permit entry program.

ATTACHMENT A

CONFINED SPACE ENTRY PERMIT

DATE _____ PROJECT NO. _____ CONFINED SPACE ENTRY PERMIT NO. _____

JOB LOCATION: _____

WORK OBJECTIVE(S): _____

CONFINED SPACE PREPARATION: _____

CONFINED SPACE ISOLATION: _____

ATMOSPHERE TESTING:

Test	Location	Reading	Time	Initials
1 OXYGEN (%)				
FLAMABILITY (% LEL)				
TOXIC, GASES VAPORS, DUSTS				
*Specify				
2 OXYGEN (%)				
FLAMABILITY (% LEL)				
TOXIC, GASES VAPORS, DUSTS				
Specify				

CONFINED SPACE CLASS: ☐ A ☐ B ☐ C

RESPIRATORY PROTECTION REQUIRED: _____

PROTECTIVE EQUIPMENT REQUIRED: _____

	(print name)	(signature)
PERSONNEL ENTERING:		
STANDBY PERSON:		
ATMOSPHERE TESTER:		
PROJECT MANAGER:		
OPERATIONS MANAGER:		

EMERGENCY TELEPHONE _____ OTHER _____

GUIDELINES MUST BE ADDRESSED

1. IS THE PRODUCT REMOVED ?

☐ YES ☐ NOT NECESSARY

2. IS THE CONFINED SPACE CLEANED, WASHED, AND PURGED ?

☐ YES ☐ NOT NECESSARY

3. IS ALL ELECTRICAL, MECHANICAL, AND PNEUMATIC SYSTEMS PROPERLY LOCKED AND TAGGED ?

☐ YES ☐ NOT NECESSARY

4. ARE ALL PRODUCT LINES ENTERING THE CONFINED SPACE DISCONNECTED, BLINDED, OR BLOCKED OFF ?

☐ YES ☐ NOT NECESSARY

5. IS A COMPETENT PERSON ASSIGNED TO THE ATMOSPHERE TESTING DUTIES ? IF NOT, DO NOT PROCEED WITH CHECK LIST. ☐ YES

6. WAS THE SURROUNDING AREA CHECKED FOR FLAMMABLE GASES, VAPORS, OR DUSTS ?

☐ YES TIME: _____ ☐ NOT NECESSARY

FOR OXYGEN DEFICIENCY ?

☐ YES TIME: _____ ☐ NOT NECESSARY

7. IS THE STANDBY OBSERVER ASSIGNED PROPERLY INSTRUCTED IN OPERATIONS AND RESCUE PROCEDURES ?

IF NOT, DO NOT PROCEED WITH CHECK LIST. ☐ YES NAME: _____

8. ARE ALL EMPLOYEES ASSIGNED ENTRY TRAINED IN EMERGENCY PROCEDURES ? IF NOT, DO NOT PROCEED WITH CHECK LIST. ☐ YES

9. IS A SELF CONTAINED BREATHING APPARATUS READILY AVAILABLE FOR EMERGENCY ? IF NOT, DO NOT PROCEED WITH CHECK LIST. ☐ YES

10. IS LIFELINE, HARNESS, EXTRACTION DEVICE PRESENT AND IN GOOD WORKING ORDER ?

☐ YES ☐ NOT NECESSARY

REMARKS:

ATTACHMENT B

STANDBY OBSERVER'S CHECK LIST

1. Valid confined space entry permit posted _____ ☐
2. Harness and life line present and in good condition _____ ☐
3. Instructed in use of life line and harness _____ ☐
4. Location of telephone or two-way radio known _____ ☐
5. Knows location of work at the job site _____ ☐
6. Knows how to report an emergency _____ ☐
7. Knows not to leave site when employee(s) are inside, except to make emergency call _____ ☐
8. Knows NOT TO ENTER CONFINED SPACE FOR ANY REASON other than rescue after informing others of intent _____ ☐
9. Knows location of safety shower, eye wash _____ ☐
10. Knows location of fire extinguisher and instructed in use _____ ☐
11. Understands operation of air mover or other ventilating equipment _____ ☐
12. Understands operation of supplied air respirators (air line and self contained) _____ ☐
13. Informed of the potential hazards present and work to be performed _____ ☐
14. Has necessary safety equipment for rescue _____ ☐

SUPPLEMENTAL ATMOSPHERE TESTING DATA SHEET FOR CONFINED SPACE ENTRY PERMIT

DATE _____ PROJECT NO. _____ CONFINED SPACE ENTRY PERMIT NO. ____

	Test	Location	Reading	Time	Initi
1	OXYGEN (%) _____				
	FLAMABILITY (% LEL) _____				
	TOXIC, GASES, VAPORS, DUSTS ____				
	Specify _____				
2	OXYGEN (%) _____				
	FLAMABILITY (% LEL) _____				
	TOXIC, GASES, VAPORS, DUSTS ____				
	Specify _____				
3	OXYGEN (%) _____				
	FLAMABILITY (% LEL) _____				
	TOXIC, GASES, VAPORS, DUSTS ____				
	Specify _____				
4	OXYGEN (%) _____				
	FLAMABILITY (% LEL) _____				
	TOXIC, GASES, VAPORS, DUSTS ____				
	Specify _____				
5	OXYGEN (%) _____				
	FLAMABILITY (% LEL) _____				
	TOXIC, GASES, VAPORS, DUSTS ____				
	Specify _____				

Location Diagram:

ATTACHMENT 5

TAILGATE SAFETY MEETING
(SAMPLE FORM)

SITE SAFETY BRIEFING

Job Name ______________________ Number ______________________

Date ________ Start Time ________ Completed ________

Site Location ______________________

Type of Work (General) ______________________

Safety Issues

Tasks (this shift) ______________________

Protective Clothing/Equipment ______________________

Chemical Hazards ______________________

Physical Hazards ______________________

Control Methods ______________________

Special Equipment/Techniques ______________________

Hazard Communication Overview ______________________

Nearest Phone ______________________

Hospital Name/Address ______________________

Special Topics (incidents, actions taken, etc.) ______________________

ATTENDEES

Print Name	Sign Name

Meeting conducted by ______________________

ATTACHMENT 6

HazCat Manual - table of contents

Manual available on request

Contents

SHORT DESCRIPTION OF THE TESTS

CHARTS

DETAILED DESCRIPTION OF TESTS